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Redescription of *Hemieuryale pustulata* von Martens, 1867 (Echinodermata, Ophiuroidea) based on Brazilian specimens, with notes on systematics and habitat association

ANNE ISABELLEY GONDIM^{1,4}, THELMA LÚCIA PEREIRA DIAS²,
MARTIN LINDSEY CHRISTOFFERSEN¹ & SABINE STÖHR³

¹Universidade Federal da Paraíba, Programa de Pós-Graduação em Ciências Biológicas, Laboratório de Invertebrados Paulo Young, Departamento de Sistemática e Ecologia, Campus I, Cidade Universitária, CEP 58051-900, João Pessoa, PB, Brasil

²Universidade Estadual da Paraíba, Laboratório de Biologia Marinha, CCBS, Departamento de Biologia, Campus I, Rua Baraúnas, 351, Bairro Universitário, CEP 58429-500, Campina Grande, PB, Brasil

³Swedish Museum of Natural History, Department of Zoology, Box 50007, 104 05 Stockholm, Sweden

⁴Corresponding author. E-mail: anneisabelley@yahoo.com.br

Abstract

We redescribe *Hemieuryale pustulata* on the basis of 325 specimens obtained from the continental shelf off northeastern and southeastern Brazil. This is the first record of the species for Brazil. We illustrate for the first time details of the dental plate, oral plate, and vertebrae. Few morphological variations were observed in our extensive material. All specimens were associated with the gorgonian *Nicella guadalupensis*, suggesting an obligatory association in the Brazilian littoral. *H. pustulata* did not reveal a particular pattern of distribution on its host gorgonian, but larger gorgonians tend to support a larger number of ophiuroids. In addition to expanding the knowledge on morphology and ecology, we extend the known bathymetric distribution of the species, which is now known from 18 to 330 m.

Key words: Brittle-stars, Hemieuryalidae, morphology, taxonomy, ecology

Resumo

Este estudo apresenta uma redescricao para *Hemieuryale pustulata* a partir de 325 espécimes obtidos na plataforma continental do nordeste e sudeste brasileiro, sendo este o primeiro registro da espécie para o Brasil. São descritos e ilustrados pela primeira vez alguns caracteres internos para esta espécie, tais como placa dental, placa oral e vértebras. Poucas variações morfológicas foram observadas nos exemplares estudados. Todos os espécimes analisados estavam associados à gorgônia *Nicella guadalupensis*, sugerindo uma associação simbiótica obrigatória no litoral brasileiro. *H. pustulata* não apresentou um padrão claro de distribuição na gorgônia-habitat, porém, pode-se constatar que gorgônias maiores abrigam maior abundância de indivíduos. Além dos dados morfológicos e ecológicos apresentados, este estudo amplia o intervalo de faixa batimétrica desta espécie, agora conhecida de 18 a 330 m de profundidade.

Palavras-chave: Estrelas-serpentes, Hemieuryalidae, morfologia, taxonomia, ecologia

Introduction

Hemieuryalidae is probably one of the least known families of Ophiuroidea, regarding ecology and morphology, as well as phylogeny. Its species are rare and difficult to obtain (Murakami 1963). Probably for these reasons, knowledge of these animals is almost completely restricted to the original descriptions of the species.

The family Hemieuryalidae was erected by Verrill (1899a), initially to incorporate the genera *Ophioplus* Verrill, 1899a, *Hemieuryale* von Martens, 1867 and *Sigsbeia* Lyman, 1878. Over the next years, six new genera were established in this family, as follows: *Ophiochondrus* Lyman, 1869, *Ophiomoeris* Koehler, 1904,

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